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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,222	06/07/2000	Michael A. Curran	MIC 1010-009	8677

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EXAMINER

COSIMANO, EDWARD R

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,222

Applicant(s)

CURRAN ET AL.

Examiner

Edward R. Cosimano

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MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/7/00 & 12/29/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Applicant should note the changes to patent practice and procedure:
 - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
 - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
 - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. A substitute specification including the claims is required pursuant to 37 CFR § 1.125(a) because the number of amendments contained in the amendment filed December 29, 2003.
 - 2.1 A substitute specification filed under 37 CFR § 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR § 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR § 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.
3. The following objections, note sections 4-7 below, would be withdrawn once the amendments of December 29, 2003 have been properly entered in the substitute specification required above, with the exceptions of:
 - A) section (6)(A)(1)(a) in regard to reference number 158.
4. The use of various trademark(s), for example, Windows NT, Pentium, Celeron, have been noted in this application:
 - A) in the paragraph between page 3 line 14, and page 4, line 5, "Referring to Fig. 1, the ... Windows NT ... Windows NT ... modules contain accurate and timely information.";
 - B) in Table 1 on page 4;
 - C) in Table 2 on page 5;

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D) in the paragraph between page 6, line 18, and page 7, line 2, "The following example illustrates ... Pentium ... 146 provides the current feasibility analysis." ;

E) in the paragraph between page 7, line 18, and page 8, line 7, "Referring to the product ... Pentium. The ... Pentium processor, the Pentium processor ... to obtain a complete list of available chip sets."

Any trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.

4.1 Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

5. The drawings are objected to because

A) the following errors have been noted in the drawings:

(1) The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

(a) 156 as mentioned in the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units."; and

(b) 208 as mentioned in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product.".

(2) The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

(a) 158 note the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... product and generate initial prototype units.";

(b) 20 note the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product."; and

(c) 199 of fig. 5A note the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations."

(3) as can be seen in fig. 4 and from the context of the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units.", in fig. 4 "15" should be -156--, it is noted that this number may have been cut off when this fig. was reproduced.

(4) as can be seen in fig. 5A and from the context of the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... steps 208 or 164 ... proceeds with specifying criteria relevant to the product.", in fig. 5A "20" should be -208--, it is noted that this number may have been cut off when this fig. was reproduced.

5.1 A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5.2 Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

6. The disclosure is objected to because of the following informalities:

A) as required by 37 CFR § 1.84(p(5)) and 37 CFR § 1.121(e) the specification lacks an explicit reference to the nature of:

(1) reference legend(s):

(a) 15 & 158 of fig. 4 in the paragraph between page 9, line 6, and page 10, line 2, "The final block is the I/O ... feasibility window 156 ... feasibility window 156 ... product and generate initial prototype units.";

(b) 20, 196 & 208 of fig. 5A in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... proceeds with specifying criteria relevant to the product."; and

(c) 199 of fig. 5A in the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations.";

(2) how the program proceeds after box(es):

(a) 184 of fig. 5A if the inquiry is "YES" in the paragraph at page 15, lines 1-21, "Referring to Figs. 5A and 5B, a flowchart ... 192 as is prompted for additional criteria.";

(b) 164, 166, 168, 208, 224 & 226 of fig. 5A if the inquiry is "NO" in the paragraph between page 15, line 22, and page 16, line 12, "In steps 208, 224, 226 and 228 ... proceeds with specifying criteria relevant to the product.";

(c) 199 of fig. 5A if the inquiry is either "YES" or "NO" in the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations.";

(d) 228 of fig. 5A if the inquiry is "NO" in the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations.";

(e) 258, 264 & 268 of fig. 5B if the inquiry is either "YES" or "NO" in the paragraph between page 16, line 13, and page 17, line 10, "If the user selects a graphics controller ... with several different design choices and product configurations."; and

(f) 230, 232, 240 & 246, of fig. 5A if the inquiry is "NO" in the paragraph between page 16, line 13, and page 17, line 10, "If the user

selects a graphics controller ... with several different design choices and product configurations.”; and

(3) exactly how the flow proceed between boxes 264, 266, 268 & 270 of fig. 5A in the paragraph between page 16, line 13, and page 17, line 10, “If the user selects a graphics controller ... with several different design choices and product configurations.”.

In this regard, it is noted that merely mentioning a number with out mentioning the device or operation of the step relies on the drawing to provide support for the disclosure and not to aid in the understanding of the invention, as is the purpose of the drawings (37 CFR § 1.81(a,b)).

Appropriate correction is required.

7. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

8. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

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8.1 Claims 1-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Elliott (6,446,053) in view of either Cornwell (5,255,207) or Heng et al (6,083,275) or Kumagai (6,496,957).

8.1.1 In regard to claims 1, 3, 4, 6-14, 16-25 & 27-32, Elliott ('053) discloses a computerized designing (CAD) system in which an user connects via a network to centralized computer system and data bases. Once connected, the user is permitted to view and design an item via a series of guiding menus for the selection of various forms/components and the associated functions of the selected forms/components. Further the system determines the estimated cost of the designed item.

8.1.2 Elliott ('053) does not evaluate the design feasibility of the design nor is Elliott ('053) applied to designing circuit boards. However either Cornwell ('207) or Heng et al ('275) or Kumagai ('957) discloses a CAD system that permits the user to modify the design of a product with in various design constraints, for example, size, manufacturability, etc., and determines cost of the designed product. In this manner, the user is saved time, effort and money on designs that are either to costly or cannot be manufactured. Since a designer would not want to waste is saved time, effort and money on designs that are to costly or cannot be manufactured, it would have been obvious to one of ordinary skill at the time the invention was made that the CAD system of Elliott ('053) could be modified to consider and display the feasibility of a design as taught by either Cornwell ('207) or Heng et al ('275) or Kumagai ('957).

8.1.3 In regard to the attributes of claims 4, 19 & 24, since the attributes of an item being design inherent affect the design and hence would inherently affect the manufacturing process for the designed item, it would have been obvious to one of ordinary skill at the time the invention was made that the CAD system of Elliott ('053) as modified by either Cornwell ('207) or Heng et al ('275) or Kumagai ('957) would consider the attributes of the item being designed.

8.1.4 In regard to claims 2, 5, 15 &, 26, it is noted that both Elliott ('053) and Kumagai ('957) use the same basic method of designing item except that Kumagai ('957) is directed to designing circuit boards. Hence, it would have been obvious to one of ordinary skill at the

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time the invention was made that the CAD system of Elliott ('053) could be modified to be used to design circuit boards as taught by Kumagai ('957) by merely changing the data of the forms/components stored in the data bases of Elliott ('053).

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

9.1 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Response to applicant's arguments.

10.1 All rejections and objections of the previous Office action not repeated or modified and repeated here in have been over come by applicant's last response.

10.2 As per the 35 U.S.C. § 103 rejection, since:

A) since a design that:

- (1) can not fit into the allotted space; or
- (2) can not operate/perform the desired final result; or
- (3) would consume more power than is supplied to it; or
- (4) is constructed from incompatible components;

would not present an operative and useful design, it would be inherent to one of ordinary skill that when either Cornwell ('207) or Heng et al ('275) or Kumagai ('957) discloses a CAD system that permits the user to modify the design of a product with in various design constraints, the size, manufacturability and compatibility of the selected components for performing the desired useful result are checked, since a design that is either incompatible or inoperative for the desired end result would not be desirable by one of ordinary skill or the customer for which the design is being generated.

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B) in regard to the use of manual or automatic activity to perform a function, since:

(1) neither the claims nor the teachings of the prior precludes some of the claims limitations to be performed manually or with the aid of a computer/calculator; and

(2) the Court has stated it is not invention to broadly replace manual activity with an automatic activity that accomplishes the same result, (In re Venner and Bowser, 120 U.S.P.Q. 192 @ 194 (CCPA, 1958));

the instant claims are broad enough to include the claim limitations as being in both a manual and an automatic manner.

Hence, in view of the above, the applied prior art doe result in the claimed invention and applicant's arguments are deemed non persuasive.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

11.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

11.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

03/10/04



Edward R. Cosimano
Primary Examiner A.U. 3629